(Use several sheets if necessary)

JUN 3 0 2000

DTO	FORM	1449

	Mach all Fift				
ATTY DOCKET NO	7 7 7				
00801.0137.US07	09/359,300				
APPLICANT					
Monto H. Kumagai, e <i>t al</i> .					
FILING DATE	GROUP				
July 21, 1999	1636				

			U.	S. PATENT DOCUMENTS			
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
UFJ.		5,977,438	11/02/1999	Turpen, et al.	/		
		5,922,602	07/13/1999	Kumagai, et al.			
		6,037,456	03/14/2000	Garger et al.		1	
		4,373,071	2/8/1983	Itakura		er er er	
		4,401,796	8/30/1983	Itakura	÷		·
		4,415,732	11/15/1983	Caruthers et al.			
		4,458,066	7/3/1984	Caruthers et al.			
	. 44	4,500,707	2/19/1985	Caruthers et al.			
		4,668,777	5/26/1987	Caruthers et al.			
		4,683,195	7/28/1987	Mullis et al.			
:		4,683,202	7/28/1987	Mullis			
		4,885,248	12/5/1989	Ahlquist			
		4,973,679	11/27/1990	Caruthers et al.			
		5,047,524	09/10/1991	Andrus et al.			
		5,132,418	07/21/1992	Caruthers et al.			
		5,143,854	9/1/1992	Pirrung et al.			

EXAMINER	DATE CONSIDERED
Avel 4/1//	2.12.0;

Sheet	2	of	15

(Use several sheets if necessary)

JUN	3	0	2000	10 = 01
-----	---	---	------	---------

PTO	FORM	1449

	ATTY DOCKET NO	
	00801-0137-U\$07	09/359,300
	APPLICANT	
	Monto H. Kumagai, e <i>t al.</i>	
i	FILING DATE	GROUP
	July 21, 1999	1636

-						
	5,153,319	10/06/1992	Caruthers et al.			
	5,173,410	12/22/1992	Ahlquist			
	5,262,530	11/16/1993	Andrus et al.			
	5,312,910	5/17/1994	Kishore et al.			
DA 3	5,316,931	5/31/1994	Donson et al.			
	5,412,087	5/2/1995	McGall et al.			
₩Ĵ.	5,466,788	11/14/1995	Ahlquist et al.			
	5,489,678	2/6/1996	Fodor et al.			
HAIL	5,491,076	2/13/1996	Carrington et al.			
7,0	5,500,360	3/19/1996	Ahlquist et al.		:	
	5,571,639	11/5/1996	Hubbell et al.			
777	5,589,367	12/31/1996	Donson et al.			
,,,,,	5,602,242	2/11/1997	Ahlquist et al.			
	5,605,793	2/25/1997	Stemmer	4	- 4	
	5,618,699	4/8/1997	Hamamoto et al.			
	5,627,060	5/6/1997	Ahlquist et al.			
	5,629,175	5/13/1997	Goodman et al.			
	5,633,447	5/27/1997	Ahlquist et al.			
	5,700,642	12/23/1997	Monforte et al.			

EXAMINER /	DATE CONSIDERED
Derold & Will	2.1201

Sheet	3	of	15

(Use several sheets if necessary)

PTO FORM 1449

JUN 3 0 2000

	ATTY DOCKET NO	
	00801-0137-US07	09/359,300
	APPLICANT	
Monto H. Kumagai, et al.		
	FILING DATE	GROUP
	July 21, 1999	1636

July 21, 1999

	- CV		- b			
TRADE	MALL			.,	·	,
	5,714,313	2/3/1998	Garfinkel et al.			
	5,716,802	2/10/1998	Sijmons et al.			
	5,723,755	3/3/1998	Fortin			
	5,744,305	4/28/1998	Fodor et al.			
	5,811,238	9/22/1998	Stemmer et al.	. :		
Alis	5,811,653	9/22/1998	Turpen	-		
	5,830,721	11/3/1998	Stemmer et al.			
	5,834,252	11/10/1998	Stemmer et al.			
	5,837,458	11/17/1998	Minshull et al.			
the last	5,866,785	2/2/1999	Donson et al.			
7 70	5,889,165	3/30/1999	Fodor et al.	· .		
	5,889,190	03/30/1999	Donson et al.			
	5,891,665	04/06/1999	Wilson			
	5,899,191	3/30/1999	Turpen			

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANS	SLATION
						YES	NO
	WO 91/01375 A	Feb. 7, 1991	РСТ				
BAS	WO 94/10329	May 11, 1994	PCT				
	WO 95/34668	Dec. 21, 1995	PCT				
	WO 96/04393	Feb 15, 1996	PCT				

EXAMINER	,	1
<i>→</i> , ∧	111	
1402011 12	11//	1

DATE CONSIDERED

1 1201

LIST OF	REFERENCES	CITED B	Y APPLIC	ANT

(Use several sheets if necessary)

JUN 3 0 2000

$DT \cap$	FORM	1///
rıu	FUNIVI	1443

PTO FORM 144	18
--------------	----

ATTY DOCKET NO 00801-0137-US07 09/359,300 APPLICANT Monto H. Kumagai, et al. GROUP FILING DATE 1636 July 21, 1999

TRANS	1112 221224		l nex	<u> </u>	1	1	}
	WO 96/06111	Feb 29, 1996	PCT				
	WO 97/04112	Feb 6, 1997	PCT				
	WO 97/04113	Feb 6, 1997	PCT				
	WO 97/10328	March 20, 1997	PCT				
	WO 97/32024	Sept 4, 1997	PCT				
	WO 97/37014	Oct 9, 1997	PCT - :				
	WO 97/40178	Oct 30, 1997	PCT				
List)	WO 97/42210	Nov 13, 1997	PCT				
	WO 98/07886	Feb 26, 1998	PCT				
	WO 98/13487	April 2, 1998	PCT - S S S S S S S S S S S S S S S S S S				
	WO 98/27230	June 25, 1998	PCT:				
	WO 98/31837	July 23, 1998	PCT				
	WO 98/36083 A	Aug. 20, 1998	PCT				
	WO 99/06593	Feb 11, 1999	PCT				
	WO 99/07888	Feb 18, 1999	РСТ				

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

	Abramson, et al., Current Opinion Biotechnology 4:41-47 (1993)
·	Agapov, E., et al., "Noncytopathic Sinbis virus RNA vectors for heterologous gene expression," Proc. Natl. Acad. Sci. USA 95:12989-12994 (1998)
642	Ahlquist, et al., "Complete Nucleotide Sequence of Brome Mosaic Virus RNA3," J. Mol. Biol. 153:23-38 (1981)
ARG	Ahlquist, D., et al., "Multicomponent RNA plant virus infection derived from cloned viral cDNA," Proc. Natl. Acad. Sci. USA 81:7066-7070 (1984)
	Allison, R., et al., "Regeneration of a functional RNA virus genome by recombination between deletion mutants and requirement for cowpea chlorotic mottle virus 3a and coat genes for systemic infection," <i>Proc. Natl. Acad. Sci. USA</i> 87(5):1820-1824 (1990)
	Alwine, et al., "Method for detection of specific RNAs in agarose gels by transfer to

EXAMINER		DATE CONSIDERED
	Directed of full	21201

(Use several sheets if necessary)

PTO FORM 1449

_	
ATTY DOCKET NO	
00801-0137-US07	09/359,300
APPLICANT	
Monto H. Kumagai, e <i>t al.</i>	
FILING DATE	GROUP
July 21, 1999	1636

MAD	EMB	
		diazobenzyloxymethyl-paper and hybridization with DNA probes," <i>Proc. Natl. Acad. Sci. USA</i> 74(12:5350-5354 (1977)
		Angell, S. M. et al., *Consistent gene silencing in transgenic plants expressing a replicating potato virus X RNA,* EMBO Journal 16 (12):3675-3684 (1997)
		Arkin, et al., Proc. Natl. Acad. Sci. USA 89:7811-7815 (1992)
KKG		Armstrong, et al., "Conserved enzymes mediate the early reactions of carotenoids biosynthesis in nonphotosynthetic and photosynthetic prokaryotes," <i>Proc. Natl. Acad. Sci. USA</i> 87:9975-9979 (1990)
		Armstrong, et al., "Genetic and Biochemical Characterization of Carotenoid Biosynthesis Mutants of <i>Rhodobacter capsulatus</i> ," J. <i>Biol. Chem.</i> 265:8329-8338 (1990)
		Arnold, "Design by Directed Evolution," Acc. Chem. Res. 31:125-131 (1998)
× .	: -	Arnold, <i>Proc. Natl. Acad. Sci. USA</i> <u>95</u> :2035-2036 (1998)
		Aslanidis, et al., "Ligation-independent cloning of PCR products (LIC-PCR)," Nucleic Acids Research 18(20):6069-6074 (1990)
		Aslanidis, et al., "Minimal Length Requirement of the Single-stranded Tails for Ligation-independent Cloning (LIC) of PCR Products," PCR Methods Appl. 4:172-177 (1994)
XXX		Ausubel, F., et al., Current Protocols in Molecular Biology, Green Publishing and Wiley-Interscience, NY (1987)
		Baldwin, I.T., "Jasmonate-induced responses are costly but benefit plants under attacl in native populations," <i>Proc. Natl. Acad. Sci. USA</i> 95(14):8113-8118 (1998)
		Baulcombe, "fast forward genetics based on virus-induced gene silencing", Current Opinion In Plant Biology, 2:109-113
ANG		Baulcombe, "RNA as a target and an initiator of post-transcriptional gene silencing in transgenic plants," <i>Plant Mol. Biol.</i> 32:79-88 (1996)
	9	Biotechnology 11:1548-1552 (1993)
		Bisaro, D., et al., "Genetic Analysis of Tomato Golden Mosaic Virus," Current Communications in Molecular Biology: Viral Victors, Guzman, Y., Editor, Cold Spring Harbor Laboratory, pp. 172-189 (1988)
		Black, et al., Proc. Natl. Acad Sci. USA 93:3525-3529 (1996)
14		Bobak, et al., Proc. Natl. Acad. Sci. USA <u>86</u> :6101-6105 (1989)
74.7/-		Braun, et al., Nature 391:775-778 (1998)
HAT SALL		Brisson, et al., "[46] Plant Virus Vectors: Cauliflower Mosaic Virus," Methods in Enzymology 118:659-668 (1986)
•		Brock, et al., Biology of Microorganisms, Prentice-Hall, Inc. Upper Saddle River, NJ, pp. 263-284 (1997)
		Buchman, et al., Focus <u>14</u> :41-45 (1992)
		·

Derald Aff	2 18 01

(Use several sheets if necessary)

PTO FORM 1449

_		
ATTY DOCKET NO		
00801-0137-US07	09/359,300	
APPLICANT		
Monto H. Kumagai, e <i>t al</i> .		
FILING DATE	GROUP	
July 21 1999	1636	

Bulyk, et al., "Quantifying DNA-protein interactions by double-stranded DNA arrays," Nature Biotechnology, 17:573-577 (1999)
Cadwell, et al., PCR Methods App. 3:S136-40 (1994)
Cadwell, et al., PCR Methods App. 2:28-33 (1992)
Camara, B., "[32] Plant Phyoene Synthase Complex: Component Enzymes, Immunology, and Biogenesis," <i>Methods in Enzymol.</i> 214:352-365 (1993)
Carrington, et al.,
Cease, et al., "A Vector for Facile PCR Product Cloning and Modification Generating Any Desxired 4-Base 5' Overhang: pRPM," Biotechniques, 14:250-255 (1993)
Chang, G-J. and Trent, D., "Nucleotide Sequence of the Genome Region Encoding the 26S mRNA of Eastern Equine Encephalomyelitis Virus and the Deduced Amino Acid Sequence of the Viral Structural Proteins," <i>J. Gen. Virol.</i> 68:2129-2142 (1987)
Chittenden, T., et al., "Regulated Republication of an Episomal Simian Virus 40 Origin Plasmid in COS7 Cells," J. Viral. 65(11):5944-5951 (1991)
Christians, et al., "Directed evolutionof thymidine kinase for AZT phosphorylation using DNA family shuffling", Nat. Biotechnol. 17:259-264 (1999)
Cillo, et al., "Homeobox Genes and Cancer," Exp. Cell Res., 248:1-9 (1999)
Cleland, et al., Protein Engineering: Principles and Practice, Wiley-Liss (1996)
Condreay, et al., Proc. Natl. Acad. Sci. USA, 96:127-132 (1999)
Couto, et al., "Cloning and Sequence Analysis of Human Breast Epithelian Antigen BA46 Reveals an RGD Cell Adhesion Sequence Presented on an Epidermal Growth Facor-Like Domain," DNA Cell Biology 15:281-286 (1996)
Crameri, A., et al., "Improved Green Fluorescent Protein by Molecular Evolution Using DNA Shuffling," Nature Biotech. 14:315-319 (1996)
Crameri, A., et al., "Molecular evolution of an arsenate detoxification pathway by DNA shuffling," Nature Biotech. 15:436:438 (1997)
Crameri, et al., "DNA shuffling of a family of genes from diverse species accelerates directed evolution," Nature 391:288-291
Crameri, et al., Nature Medicine 2:100-103 (1996)
Curr. Opin. Biotechnol <u>6</u> (1):30-36 (1995)
Curr. Opin. Cell Biol. 7:399-405 (1995)
Dallman, et al., "Molecular characterization of tobacco cDNAs encoding two small GTP-binding proteins," Plant Molecular Biol. 19:847-857 (1992)
Davis, N., et al., "A Viral Vaccine Vector That Expresses Foreign Genes in Lymph Nodes and Protects against Mucosal Challenge," J. Virol. 70(6):3781-3787 (1996)
Dawson, et al., "A Tobacco Mosaic Virus-Hybrid Expresses and Loses an Added Gene," Virology

EXAMINER

DATE CONSIDERED

(Use several sheets if necessary)

PTO FORM 1449

ATTY DOCKET NO			
00801-0137-US07	09/359,300		
APPLICANT			
Monto H. Kumagai, et al.			
FILING DATE	GROUP		
July 21 1999	1636		

CHOEMARI	
	172:285-292 (1989)
L \ \ \	Dawson, et al., "cDNA cloning of the complete genome of tobacco mosaic virus and production
HHO	of infectious transcripts," Proc. Natl. Acad. Sci. USA 83:1832-1836 (1986)
FR.	Dawson, W., et al., "Regulation of Tobamovirus Gene Expression," Advances in Virus Res, 38:307-342 (1990)
N N V	Delagrave, et al., Biotechnology 11:1548-1552 (1993)
	Della-Cioppa, et al., "Genetic Engineering of herbicide resistance in plants," Frontiers of Chemistry: Biotechnology, Chemical Abstract Service, ACS, Columbus, OH, pp. 665-70 (1989)
	Deom, et al., "The 30-Kilodalton Gene Product of Tobacco Mosaic Virus Potentiates Virus Movement," Science 237:389-394 (1987)
	DeRisi, et al., "Exploring the Metabolic and Genetic Control of Gene Expression on a Genomic Scale," Science 278:680-686 (1997)
	Dietmaier, et al., "DISEC-TRISEC: di and-trinucleotide-sticky-end closing of PCR-amplified DNA," Nucleic Acids Res. 21:3603-3604 (1993)
	Dijkstra, et al., Practical Plant Virology: Protocols and Exercises, Springer Verlag (1998)
146	DNA Cloning, D.M. Clover, Ed., IRL Press, Oxford (1985)
143 143	Donson, et al., "Agrobacterium-Mediated Infectivity of Cloned Digitaria Streak Virus DNA," Virology 162:248-250 (1988)
HAJ	Dougherty and Parks, "Transgenes and gene suppression: telling us something new?" Current Biology Ltd. 7:399-405 (1995)
	Duechler, et al., "Evolutionary relationships within the human rhinovirus genus: Comparison of serotypes 89, 2, and 14," <i>Proc. Natl. Acad. Sci. USA</i> 84:2605-2609 (1987)
	Eckert, et al., PCR Methods App. 1:17-24 (1991)
142	Elmer, et al., "Agrobacterium-mediated inoculation of plants with tomato golden mosaic virus DNAs," Plant Mol. Biol. 10:225-234 (1988)
	Flasinski, S., et al., "Mutational analysis of the Coat Protein Gene of Brome Mosaic Virus: Effects on Replication and Movement in Barley and in Chenopodium hybridum," Mol. Plant Microbe Interact 8(1):23-31 (1995)
	Flasinski, S., et al., "Structure-Based Rationale for the Rescue of Systemic Movement of Brome Mosaic Virus by Spontaneous Second-Site Mutations in the Coat Protein Gene," J. Virol. 71(3):2500-2504 (1997)
ANG	Fray, et al., "Identification and genetic analysis of normal and mutant phytoene synthase genes of tomato by sequencing, complementation and co-suppression," Plant Mol. Biol. 22:589-602 (1993)
W.	French, et al., "Bacterial Gene Inserted in an Engineered RNA Virus: Efficient Expression in Monocotyledonous Plant Cells," Science 231:1294-1297 (1986)
	Frolov, I., et al., "Sindbis Virus Replicons and Sindbis Virus: Assembly of Chimeras and of Particles Deficient in Virus RNA," J. Virol. Apr. 71(4):2819-2829 (1997)

DATE CONSIDERED **EXAMINER**

(Use several sheets if necessary)

PTO FORM 1449

JUN 3 0 2000

ATTY DOCKET NO			
00801-0137-U\$07	09/359,300		
APPLICANT			
Monto H. Kumagai, et al.			
FILING DATE	GROUP		

July 21, 1999

1636

Frontiers of Chemistry: Biotechnology Chemical Abstract Service ACS, Columbus, OH pp. 665-Fukuda, et al., "The Site of Initiation of Rod Assembly on the RNA of a Tomato and a Cowpea Strain of Tobacco Mosaic Virus," Virology 101:493-502 (1980) Gardiner, et al., "Genetic analysis of tomato golden mosaic virus: the coat protein is not required for systemic spread of symptom development," EMBO J. 7(4):899-904 (1988) Gardner, et al., "Potato spindle tuber viroid infections mediated by the Ti plasmid of Agrobacterium tumefaciens," Plant. Mol. Biol. 6:221-228 (1986) Garoff, J., et al., "Recent advances in gene expression using alphavirus vectors," Curr. Opin. Biotechnol. 9(5):464-469 (1998) Girard, et al., "Capsid Proteins of Simian Virus 40," Biochem. Biophy. Res. Comm. 40(1):97-102 Giver, et al., ibid 2:335-338 (1998) Giver, et al., Proc. Natl. Acad. Sci. USA 95:12809-12813 (1998) Glazebrook, et al., "Use of Arabidopsis for Genetic Dissection of Plant Defense Responses," Annu. Rev. Gen. 31:547-569 (1997) Gluzman, et al., Communications in Molecular Biology: Viral Vectors, Cold Spring Harbor Laboratory, pp. 172-189 (1988) Goelet, et al., "Nucleotide sequence of tobacco mosaic virus RNA," Proc. Natl. Acad. Sci. USA 79:5818-5822 (1982) Gorschen, E. at al., "Expression of the ribosome-inactivating protein JIP60 from barely in transgenic tobacco leads to an abnormal phenotype and alterations on the level of transcription," Planta 202(4):470-478 (1997) Graham, et al., "Wound-induced Proteinase Inhibitors from Tomato Leaves," J. Biol. Chem. 260(11):6555-6560 (1985) Gramm, et al., "Proc. Natl. Acad. Sci. USA 89:3576-3580 (1992) Greene, A. and Allison, R., "Deletions in the 3' Untranslated Region of Cowpea Chlorotic Mottle Virus Transgene Reduce Recovery of Recombinant Viruses in Transgenic Plants," Virology 225(1):231-234 (1996) Greene, A. and Allison, R., "Recombination Between Viral RNA and Transgenic Plant Transcripts," Science 263(5152):1423-1425 (1994) Grierson, et al., "Does co-suppression of sense genes in transgenic plants involve antisense RNA?" Trends Biotechnol. 9:122-123 (1993) Grimsley, et al., "Ágroinfection," an alternative route for viral infection of plants by using the Ti plasmid," Proc. Natl. Acad. Sci. USA 83:3282-3286 (1986) Grimsley, et al., "Agrobacterium-mediated delivery of infectious maize streak virus into maize plants," Nature 325:177-179 (1987) Grimwade, D., et al., "RT-PCR in Diagnosis and Disease Monitoring of Acute Promyelocytic Leukemia (APL)," Methods Mol. Biol., 89:333-358 (1998)

EXAMINER	DATE CONSIDERED
Len Liller	2 12 01

(Use several sheets if necessary)

PTO FORM 1449

ATTY DOCKET NO		
00801-0137-US07	09/359,300	
APPLICANT		
Monto H. Kumagai, et al.		
FILING DATE	GR OUP	
July 21, 1999	1636	

	Hahn, et al., "Sequence analysis of three Sindbis virus mutants temperature-sensitive in the capsid protein autoprotease," Proc. Natl. Acad. Sci. USA 82:4648-4652 (1985)
	Hahn, et al., "Western equine encephalitis virus is a recombinant virus," Proc. Natl. Acad. Sci. USA 85:5997-6001 (1988)
FXId	Haizel, et al., "Characterization of proteins that interact with the GTP-bound form of the regulatory GTPase Ran in <i>Arabidopsis</i> ," <i>The Plant J.</i> , 11:93-103 (1997)
AXIG	Hayes, et al., "Agroinfection of <i>Triticum aestivum</i> with Cloned DNA of Wheat Dwarf Virus," J. Gen. Virol. 69:891-896 (1988)
this.	Henry, et al., "High-Leven Expression of the Ribosomal Protein L19 in Human Breast Tumors That Overexpress erb B-2 ¹ Cancer Res., 53:1403-1408 (1993)
	Horten, et al., "Engineering hybrid genes without the use of restriction enzymes: gene splicing by overlap extension," Gene 77:61-68 (1989)
	Isaksson and Landegren, Curr. Opinion Biotechnology 10:11-15 (1999)
	Ishikawa, M., et al., "In Vivo DNA Expression of Functional Brome Mosaic Virus RNA Replicons in Saccharomyces cerevisiae," J. Virol. 71(10):7781-7790 (1997)
	Izant, et al., "Inhibition of Thymidine Kinase Gene Expression by Anti-Sense RNA: A Molecular Approach to Genetic Analysis," Cell 36(4):1007-1015 (1984)
	Jacobson, G. and Roenbusch, J., "TP binding to a protease-resistant core of actin," <i>Proc. Natl. Acad. Sci. USA</i> 73(8):2742-2746 (1976)
	Janda, M., et al., "RNA-Dependent Replication, Transcription, and Persistence of Brome Mosaic Virus RNA Replicons in S. cerevisiae," Cell 72(6):961-970 (1993)
	Kaido, M., et al., "Inhibition of brome mosaic virus (BMV) amplification in protoplasts from transgenic tobacco plants expressing replicable BMV RNAs," J. Gen. Virol. 76(pt 11):2827-2833 (1995)
Alex	Karas, et al., "Laser Desorption Ionization of Proteins with Molecular Masses Exceeding 10 000 Daltons," Anal. Chem., 60:2299-2301 (1988)
	Kermode, "Mechanisms of Intracellular Protein Transport and Targeting in Plant Cells," Critical Reviews in Plant Sciences 15(4):285-423 (1996)
	Kitamura, et al., "Primary structure, gene organization and polypeptide expression of poliovirus RNA," Nature 291:547-553 (1981)
	Kovalic, et al., Nucleic Acids Res. 19:4560 (1991)
	Kozak, "Compilation and analysis of sequences upstream from the translational start site in eukaryotic mRNAs," <i>Nucleic Acids Res.</i> 12:857 (1984)
	Kozak, "How Do Eucaryotic Ribosomes Select Initiation Regions in Messenger RNA," Cell 15:1109-1123 (1978)
	Kuchner, et al., Trends Biotechnol. 15:523-530 (1997)
AND	Kumagai, et al., "Conversion of Starch to Ethanol in a Recombinant Saccharomyces cerevisiae Strain Expressing Rice -Amylase from a Novel Pichia pastoris Alcohol Oxidase Promoter," Bio.

EXAMINER

DATE CONSIDERED

2-12-01

(Use several sheets if necessary)

PTO FORM 1449

Monto H. Kumagai, e <i>t al.</i>		
APPLICANT		
00801-0137-US07	09/359,300	
ATTY DOCKET NO		

JUN 3 0 2000

Monto H. Kumagai, et al.

FILING DATE GROUP

July 21, 1999 1636

Value 1	
	Technology 11:606-610 (1993)
AAG	Kumagai, et al., 'Cytoplasmic inhibition of carotenoid biosynthesis with virus-derived RNA," Proc. Natl. Acad. Sci. USA 92:1679-1683 (1995)
KKF J	Kurisu, et al., "Biochemical Characterization of Cucumber Green Mottle Mosaic Virus Ribonucleic Acid," Virology 70:214-216 (1976)
	Landegren, Current Opinion Biotechnology 7:95-97 (1996)
	Lazar, G., et al., "Identification of a plant serine-arginine-rich protein similar to the mammalian splicing factor SF2/ASF," <i>Proc. Natl. Acad. Sci. USA</i> 92:7672-7676 (1995)
DAD .	Lazarowitz, S., "Infectivity and complete nucleotide sequence of the genome of a Sough African isolate of maize streak virus," <i>Nucl. Acids Res.</i> 16(1):229-249 (1988)
\$XX	Lebeurier, et al., "Inside-out model for self-assembly of tobacco mosaic virus," <i>Proc. Natl. Acad. Sci. USA</i> 74:149-153 (1977)
	Levis, et al., "Engineered defective interfering RNAs of Sindbis virus express bacterial chloramphenicol acetyltransferase in avian cells," <i>Proc. Natl. Acad. Sci. USA</i> 84:4811-4815 (1987)
	Lightner, et al., "Isolation of signaling mutants of tomato (Lycopersicon esculentum)," J. Mol. Gen. Genet. 241:595-601 (1993)
	Lijsebettens, et al., EMBO j., 13:3378-3388 (1994)
	Lin, et al., Proc. Natl. Acad. Sci. USA <u>96</u> :6535-6540 (1999)
	Lindquist, et al., "Sindbis Virus Mutant ts20 of Complementation Group E Contains a Lesion i Glycoprotein E2, Virology 151:10-20 (1986)
KKib	Liu, X., et al., "Receptor-mediated uptake of an extracellular Bcl-x(L) fusion protein inhibits apoptosis," <i>Proc. Natl. Acad. Sci. USA</i> , 96(17):9563-9567 (1999)
	Lopato, S., et al. PNAS 92:7672-7676 (1995).
	Lopato, S., et al., "Characterization of a Novel Arginine/Serine-Rich Splicing Factor in Arabidopsis," The Plant Cell 8:2255-2264 (1996)
	Lopez, A., "Alternative Splicing of Pre-mRNA: Developmental Consequences and Mechanisms of Regulation," Annu. Rev. Genetics 32:279-305 (1998)
ART	Maniatis, Molecular Cloning, 1st Ed.
<i>~~</i>	Matthews, Plant Virology, 3 rd Ed. Academic Press, San Diego (1991)
	McCormick, et al., Proc. Natl. Acad. Sci. USA 96:703-708 (1999)
	Medappa, et al., "On the Structure of Rhinovirus 1A1," Virology 44:259-270 (1971)
FAI	Meshi, et al., "Nucleotide Sequence of the Coat Protein Cistron and the 3' Noncoding Region of Cucumber Green Mottle Mosaic Virus (Watermelon Strain) RNA," Virology 127:54-64 (1983)
D122	Methods in Enzymol Vols. 68, 100, 101, 118, and 152-155) (1979, 1983, 1986 and 1987).
No.	Methods Mol. Biol. 89:333-358 (1998)

EXAMINER

DATE CONSIDERED

51501

(Use several sheets if necessary)

PTO FORM 1449

JUN 3 0 2000

OTC	FORM	1449

ATTY DOCKET NO		
00801-0137-US07	09/359,300	
APPLICANT	•	
Monto H. Kumagai, et al.		
FILING DATE	GROUP	
luly 21 1999	1636	

RADEN		
	Miller, J., Experiments in Molecular Genetics, Cold Spring Harbor Laboratory, New York ((1972)
	Miller, W. and Hall, T., "RNA-Dependent RNA Polymerase Isolated from Cowpea Chloroti Mottle Virus-Infected Cowpeas Is Specific for Bromoviral RNA," Virology 132:53-60 (198	
	Minshull, et al., "Protein evolution by molecular breeding," Curr. Opin. Chem. Biol. 3:284 (1999)	l-290
	Misawa, et al., "Expression of an Erwinia phytoene desaturase gene not only confers mul resistance to herbicides interfering with carotenoid biosynthesis but also alters xanthophy metabolism in transgenic plants," Plant J. 6(4):481-489 (1994)	yll
	Mitsui, T. and Akazawa, T., "Preferential Secretion of R-Type -Amylast Molecules in Ride Scutellum at High Temperatures," <i>Plant Physiol.</i> 82:880-884 (1986)	e Seed
u e de d	Monroe, S. and Schlesinger, S., "Common and Distinct Regions of Defective-Interfering F Sindbis Virus," J. Virology 49(3):865-872 (1984)	RNAs of
	Moore, et al., "Directed evolution of a para-nitrobenzyl esterase for aqueous-organic solven Natl. Biotechnol. 14:458-467 (1996)	ents,"
	Morcey, et al., Proc. Natl. Acad. Sci. USAi 95:7866-7871 (1998)	
	Mori, et al., "mRNA amplification system by viral replicase in transgenic plants," FEBS Le 336(1):171-174 (1993)	ett.
	Morozov, SYu, et al., "Complementation of a potatoe virus X mutant mediated by bombardment of plan with cloned viral movement protein genes," J Gen Virol (Pt 8):2077-2083 (1997)	nt tissues
	Munishkin, et al., Nature 333(6172):473-5 (1988)	
	Nagano, H., et al., "Deletion of the C-terminal 33 Amino Acids of Cucumber Mosaic Virus Movement Protein Enables a Chimeric Brome Mosaic Virus to Move from Cell to Cell," J. 71(3):2270-2276 (1997)	
this.	Nagar, et al., "A Geminivirus Induces Expression of a Host DNA Synthesis Protein in Terr Differentiated Plant Cells," The Plant Cell, 7:705-719 (1995)	minally
1803 1802	Napoli, et al., "Introduction of a Chimeric Chalcone Synthase Gene into Petunia Results in Reversible Co-Suppression of Homologous Genes in trans," The Plant Cell 2:279-289 (19	
	Natl. Acad. Sci. USA 74:149 (1977)	
412	Nozu, et al., "Chemical and Immunological Characterization of Cucumber Green Mottle M Virus (Watermelon Strain Protein)," Virology 45:577-585 (1971)	.
ANS	O'Neal, et al., "Isolation of tobacco SSU genes: characterization of a transcriptionally ac pseudogene," <i>Nucl. Acids Res.</i> 15(21):8661-8677 (1987)	
	O'Neill, et al., "The amylase gene in Oryza sativa: Characterization of cDNA clones and respression during seed germination," Mol. Gen. Genet. 221:235-244 (1990)	mRNA
	Ogawa, et al., "Trans Complementation of Virus-Encoded Replicase Components of Toba Mosaic," Virology 185:580-584 (1991)	CCO
	Ooshika, I., et al., "Identification of the 30K Protein of TMV by Immunoprecipitation with Antibodies Directed against a Synthetic Peptide," Virology 132:71 (1984)	l

EXAMINER	DATE CONSIDERED	
Deal & Il	21201	

1636

LIST OF REFERENCES CITED BY APPLICANT

(Use several sheets if necessary)

PTO FORM 1449

ATTY DOCKET NO

00801-0137-US07

APPLICANT

Monto H. Kumagai, et al.

FILING DATE

GROUP

July 21, 1999

JUN 3 0 2000

HADEMA Padgett, et al., "Creating seamless junctions independent of restriction sites in PCR cloning," Gene 168:31-35 (1996) Patanjali, et al., "Construction of a uniform-abundance (normalized) cDNA library," Proc. Natl. Acad. Sci. USA 88:1943-1947 (1991) Patten, et al., "Applications of DNA shuffling to pharmaceuticals and vaccines," Curr. Opin. Chem. Biol. 8:724-733 (1997) Perrault, J., "Origin and Replication of Defective Interfering Particles," Current Topics in Microgiology and Immunology 93:151-207 (1981) Piechaczek, C., et al., "A vector based on the SV40 origin of replication and chromosomal S/MARs replicates episomally in CHO cells," Nucleic Acids Res. 27(2):426-428 (1999) Plant Virology Protocol: From Virus Isolation to Transgenic Resistance in Methods in Molecular Biology, Vol. 81, Foster and Taylor, Ed., Humana Press (1998) Priano, C., et al., "Translational Activation in Coliphase QB: On a Polycistronic Messenger RNA, Repression of One Gene can Activate Translation of Another," J. Mol. Biol. 271(3):299-310 (1997)Price, et al., Proc. Natl. Acad. Sci. USA 93:9465-9570 (1996) Prives, et al., "Cell-Free Translation of Messenger RNA of Simian Virus 40: Synthesis of the Major Capsid Protein," Proc. Natl. Acad. Sci. USA 71(2):302-306 (1974) Pushko, P., et al., "Replicon-Helper Systems from Attenuated Venezuelan Equine Encephalitis Virus: Expression of Heterologous Genes in Vitro and Immunization against Heterologous Pathogens in Vivo," Virology 239(2):389-401 (1997) Rao, A. and Grantham, G., "Biological Significance of the Seven Amino-Terminal Basic Residues of Brome Mosaic Virus Coat Protein," Virology 211(1):42-52 (1995) Rao, A. and Grantham, G., "Molecular Studies on Bromovirus Capsid Protein. II. Functional Analysis of the Amino-Terminal Arginine-Rich Motif and Its Role in Encapsidation, Movement, and Pathology," Virology 226(92):294-305 (1996) Rao, A., "Molecular Studies on Bromovirus Capsid Protein III. Analysis of Cell-to-Cell Movement Competence of Coat Protein Defective Variants of Cowpea Chlorotic Mottle Virus," Virology 232(2):385-395 (1997) Rachtchian, et al., "Uracil DNA Glycosylase-Mediated Cloning of Polymerase Chain Reaction -Amplified DNA: Application to Genomic and cDNA Cloning," Anal. Biochem. 206:91-97 (1992) Rachtchian, "Novel Methods for cloning and engineering genes using the polymerase chain reaction," Curr. Opin. Biotechnol. 6(1):30-36 (1995) Regad, et al., "cDNA cloning and expression of an Arabidopsis GTP-binding protein of the ARF family," FEBS 316(2):133-136 (1993) Rice Biotechnology Quarterly 37:4 (1999) Ryan, C., et al., "Systemin: A Polypeptide Signal for Plant Defensive Genes," Ann. Rev. Cell Dev. Biol. 14:1-17 (1998)

EXAMINER / / / /	DATE CONSIDERED
	2-12 02

LIST OF REFERENCES CITED BY APPLICANT (Use several sheets if necessary) PTO FORM 1449 Monto H. Kumagai, et al. FILING DATE ATTY DOCKET NC 09/359,300 APPLICANT FILING DATE ATTY DOCKET NC 0801-0137-US07 09/359,300 APPLICANT FILING DATE ATTY DOCKET NC 0801-0137-US07 09/359,300

17	Ţ	July 21, 1999	1636		
THADEN					
	Sablowski, R.W.M., et al., "Expression of a flowers sp ectopic activation of a target promoter," Proc. Natl. Ac	ecific Myb protein in leaf cells using cad. Sci. USA 92:6901-6905 (1995)	a viral vector causes		
	Saiki, et al., "Enzymatic Amplification of ß-Globin Genomic Sequences and Restriction Site				
X7170	Analysis for Diagnosis of Sickle Cell Anemia," Science 230:1350-1354 (1985)				
AT STATE	Sambrook, et al., Molecular Cloning: A Laboratory Manual, Second Edition, Cold Spring Harbor Labortory Press, Plainview, NY (1982, 1989)				
A.J.	Sanger, et al., "DNA sequencing with chain-terminating inhibitors," Proc. Natl. Acad. Sci. 74(12):5463-5467 (1977)				
	Schena, et al., TIBECH 16:301-306 (1998)				
	Schmitz, I. & Rao, A., "Molecular Studies on B Cell-to-Cell Movement-Defective TNA3 Variant 293 (1996)				
	Schneider, W., et al., "The Carboxyl-Terminal Bromovirus Capsid Protein Is Incapable of Virio J. Virology 71(6):4862-4865 (1997)	n Formation yet Supports Syste	emic Movement,"		
w 11 - 1	Schwechheimer, C., et al., "Plant Transcription Mol. Biol. 49:127-150 (1998)	Factor Studies," Annu. Rev. P.	lant Physiol. Plant		
	Science 276:1268-1272 (1997)				
* *	Shao, et al., "Random-priming in vitro recombination Nucleic Acids Res 26:681-683 (1998).	nation: an effective tool for dire	ected evolution,"		
Shatkin, Cell 9:645 (1976)					
	Shivprasad, et al., "Heterologous Sequences G Mosaic Virus-Based Vectors," Virology 255:31		ression in Tobacco		
	Skern, et al., "Human rhinovirus 2: complete r signals in the capsid protein region," Nucleoc A				
VAJ	Smith, et al., "Transgenic Plant Virus Resistand Expression, Regulation, and FAte of Nonessent	ce Mediated by Untranslatable S	Sense RNAs:		
	Soares, et al., "Construction and characterizati Acad. Sci. USA 91:9228-9232 (1994)				
H.J.J.	Solis, et al., "The Complete Nucleotide Sequen tobacco mile green mosaic virus,"	ce of the Genomic RNA of the	tobamovirus		
	Stemmer, "Rapid evolution of a protein in vitro (1994)	by a DNA shuffling," Nature 3	<u>70</u> :389-391		
	Stemmer, "DNA shuffling by random fragment molecular evolution," <i>Proc. Natl. Acad. Sci. US</i>	SA 91:10747-10751 (1994)			
	Stemmer, Sexual PCR and Assembly PCR in th Publishers, New York, pp. 447-457 (1996)	e Encyclopedia of Molecular Bio	ology, VCH		
	Strauss, E. and Strauss, J., "Structure and Replication of the Alphavirus Genome," The				

EXAMINER	1	,	_	/ , ,	
	de la	11/7	بر. د ا		1

DATE CONSIDERED

2 12 01

(Use several sheets if necessary)

PTO FORM 1449

ATTY DOCKET NO	
00801-0137-U S 07	09/359,300
APPLICANT	
Monto H. Kumagai, e <i>t al.</i>	
FILING DATE	GROUP
July 21, 1999	1636

CHADEMEN	
	Togaviridae and Flaviviridael, Plenum Press, New York, pp. 35-90 (1980)
~ A 1	Susek, et al., "Signal Transduction Mutants of Arabidopsis Uncouple Nuclear CAB and RBCS
HHJ	Gene Expression from Chloroplast Development," Cell 74:784-799 (1993)
	Takamatsu, et al., "Expression of bacterial chloramphenicol acetyltransferase gene in tobacco
702	plants mediated by TMV-RNA," The EMBO J. 6(2):307-311 (1987)
777	Takamatsu, et al., "Production of enkephalin in tobacco protoplasts using tobacco mosaic virus
HXXX	RNA vector," FEBS Letters 269(1):73-76 (1990)
	Tooze, J., Ed., "Appendix A - The SV40 Nucleotide Sequence," Molecular Biology of Tumor
	Viruses - DNA Tumor Viruses, Cold Spring Harbor Laboratory, New York, pp. 799-829 (1980)
	Toyoda, et al., "Complete Nucleatide Sequences of All Three Polipvirus Serotype Genomes," J.
	Mol. Biol. 174:561-585 (1984)
17/2	Turpen, et al., "Transfection of whole plants from wounds inoculated with Agrobacterium
MAS	tumefaciens containing cDNA of tobacco mosiac virus," J. Virol. Methods 42:227-240 (1993)
<i>▶</i> , <i>△</i> , △	van der Krol, A., et al., "Flavonoid Genes in Petunia: Addition of a Limited Number of Gene
XXX	Copies May Lead to a Suppression of Gene Expression," Plant Cell 2(4):291-299 (1990)
	Van Lijsebettens, M., et al., "An S18 ribosomal protein gene copy at the Arabidopsis PFL locus
	affects plant development by its specific expression in meristems," EMBO J. 13(14):3378-3388
JAXI	Velculescu, et al., Cell 88:243 (1997)
	Verwoert, et al., "A Zea mays GTP-binding protein of the ARF family complements an
1717	Escherichia coli mutant with a temperature-sensitive malonyl-coenzyme A:acyl carrier protein
7 0 0	transacylase," Plant Molecular Biol. 27:629-633 (1995)
	Voinnet, O. et al., "Systemic signalling in gene silencing" Nature 389:553 (1997)
	Walkey, Applied Plant Virology, Chapman & Hall (1991)
	Watanabe, et al., "Synthesis of TMV-Specific RNAs and Proteins at the Early Stage of Infection
·	in Tobacco Protoplasts: Transient Expression of the 30K Protein and its mRNA," Virology
	133:18-24 (1987)
	Waterhouse, et al., "Virus resistance and gene silencing in plants can be induced by
17/2	simultaneous expression of sense and antisense RNA," Proc. Natl. Acad. Sci. USA 95:13959-
100	13964 (1998)
Als	Waterhouse, et al., Proc. Natl. Acad. Sci. USA 10:13959-64 (1998)
	Weaver, S., et al., "Recombinatorial History and Molecular Evolution of Western Equine
	Encephalomyelitis Complex Alphaviruses," J. Virol. 71(1):613-623 (1997)
	Wingate, et al., "Isolation and Characterization of a Novel, Developmentally Regulated Proteinase
	Inhibitor I Protein and cDNA from the Fruit of a Wild Species of Tomato," J. Biol. Chem.
	264(30):17734-17738 (1989)
	Wychowski, et al., "The Intranuclear Location of Simian Virus 40 Polypeptides VP2 and VP3
	Depends on a Specific Amino Acid Sequence," J. Virol. 61(12):3862-3869 (1987)

EXAMINER	0	1,, 1	DATE CONSIDERED	
	Drych A F		2 12 00	

(Use several sheets if necessary)

PTO FORM 1449

JUN 3 0 2000

ATTY DOCKET NO		
00801-0137-US07	09/359,300	
APPLICANT		
Monto H. Kumagai, et al.		
FILING DATE	GROUP	
July 21, 1999	1636	

THADEME	<i>y</i>
	Yang, et al., "Construction of recombinant DNA by exonuclease recession," Nucleic Acids Res. 21:1889-1893 (1993)
	Yon, et al., Nucleic Acids Res. <u>17</u> :4895 (1989)
	You, et al., Protein Eng. 9:77-83 (1994)
N/A	Zhang, et al., "Gene Expression Profiles in Normal and Cancel Cells," Science 276:1268-1272 (1997)
	Zhang, et al., "Directed evolution of a fucosidase from a galactosidase by DNA shuffling and screening," Proc. Natl. Acad. Sci. USA 94:4504-4509 (1997)
	Zhao, et al., "Functional and nonfunctional mutations distinguished by random recombination of homologous genes," Proc. Natl. Acad. Sci. USA 94:797-8000 (1997)
	Zhao, et al., "Molecular evolution by staggered extension process (StEP) in vitro recombination," Nat. Biotechnol. 16:258-261 (1998)
	Zhao, et al., "Directed evolution converts subtilisin E into a functional equivalent of thermitase," Protein Eng. 12:47-53 (1999)
Q 42	Zheng, et al., "PNZIP Is a Novel Mesophyll-Specific cDNA That Is Regulated by Phytochrome and a Circadian Rhythm and Encodes a Protein with a Leucine Zipper Motif," <i>Plant Physiol.</i> 116:27-35 (1998)

DATE CONSIDERED **EXAMINER**